PRIMELT3 (Herzberg & Asimow 2015) solutions for primary magmas from Lagavulin.

Sample	14300	13370	13430	
SiO$_2$	44.43	46.95	47.01	
TiO$_2$	0.64	1.08	0.93	
Al$_2$O$_3$	10.70	15.39	16.01	
FeO	10.14	10.61	10.36	(toal Fe as FeO)
MnO	0.17	0.18	0.18	
MgO	23.04	10.16	8.82	
CaO	8.10	12.20	12.86	
Na$_2$O	0.73	1.85	1.95	
K$_2$O	0.70	0.16	0.33	
P$_2$O$_5$	0.04	0.08	0.06	
% Ol	-14.78	25.03	27.54	(% of olivine added or subtracted)
SiO$_2$	45.62	46.01	45.96	
TiO$_2$	0.75	0.86	0.72	
Al$_2$O$_3$	12.53	12.19	12.38	
Fe$_2$O$_3$	0.37	0.43	0.36	Fe$_2$O$_3$/TiO$_2$ =0.5 assumed for all sample
FeO	10.44	10.33	10.35	
MnO	0.18	0.18	0.18	
MgO	18.90	18.66	18.25	
CaO	9.48	9.70	9.99	
Na$_2$O	0.85	1.46	1.51	
K$_2$O	0.82	0.13	0.25	
P$_2$O$_5$	0.05	0.06	0.05	
Tol	1415	1411	1405	(T at 0GPa)
T$_P$°C	**1536**	**1529**	**1519**	
k$_{D\ Fe-Mg}$	0.296	0.297	0.296	
Xfo	0.916	0.916	0.914	(olivine Fo content)
F **(AFM)**	0.178	0.176	0.132	(F for accumulated melt-fraction)

Residual Mineralogy	Gt Peridotite	Gt Peridotite	Gt Peridotite	
Pi GPa	4.2	4.1	3.9	(Initial pressure of intersection of the dry peridotite solidus)
Pf GPa	3.1	2.9	3.1	(Final pressure of melting)

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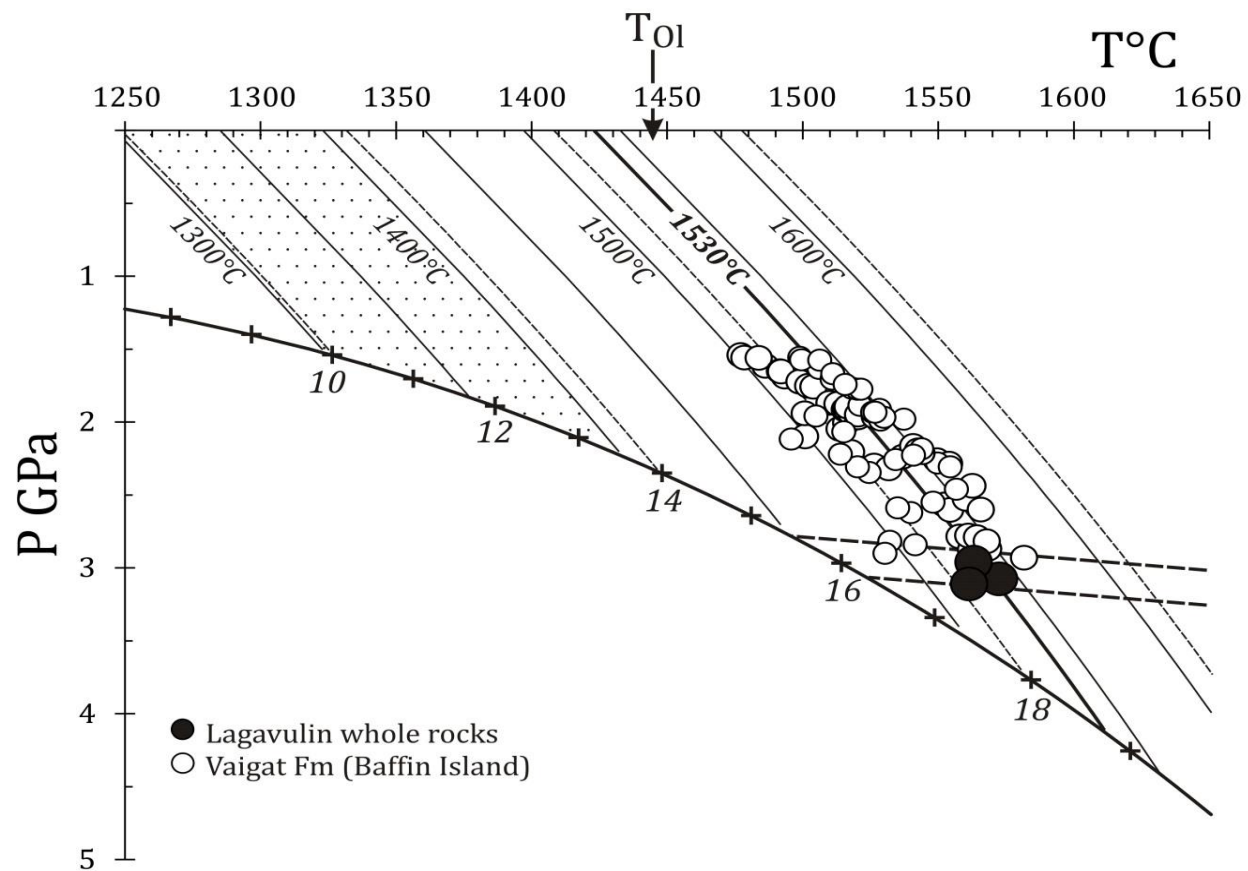
Inferred temperature-pressure conditions at which fractional melting terminated for calculated primary magmas .The shaded region along adiabat encompasses magmas derived from mantle of ambient T_p. Adiabatic melting paths are labelled with mantle potential temperature. T_{Ol} is an idenpendant estimate of the equlibration temperature of olivine using the method of Putirka et al (2007). Pecked lines are garnet-in and spinel-out with increasing pressure respectively. The diagrams were constructed following the methods of Herzberg and Gazel (2019) and Hole (2015) and data for Baffin Island is from Hole (2015).